

Surplus ACT Schools North Curtin Primary School

Traffic and Engineering Services

ACT Government TAMS Property Group

20 November 2007

DRAFT

North Curtin Primary School

Prepared for

ACT Government TAMS Property Group

Prepared by

Maunsell Australia Pty Ltd

Level 2, 60 Marcus Clarke Street, Canberra ACT 2600, Australia

T +61 2 6201 3000 F +61 2 6201 3099 www.maunsell.com

ABN 20 093 846 925

In association with

Purdon Associates Pty Ltd

20 November 2007

60027820

© Maunsell Australia Pty Ltd 2007

The information contained in this document produced by Maunsell Australia Pty Ltd is solely for the use of the Client identified on the cover sheet for the purpose for which it has been prepared and Maunsell Australia Pty Ltd undertakes no duty to or accepts any responsibility to any third party who may rely upon this document.

All rights reserved. No section or element of this document may be removed from this document, reproduced, electronically stored or transmitted in any form without the written permission of Maunsell Australia Pty Ltd.

DRAFT

Quality Information

Document North Curtin Primary School

Ref 60027820

Date 20 November 2007

Prepared by Leigh Palmer and Michael Prouza

Reviewed by Tim Rampton

Revision History

Revision	Revision Date	Details	Authorised	
			Name/Position	Signature
	20/11/2007	Draft	Neil Graham Principal Transport Engineer	

DRAFT

Table of Contents

Executive Summary		i	
1.0	North Curtin Primary School Site	1	
	1.1	Introduction	1
	1.2	The Site	1
	1.3	Existing Site Use and Conditions	2
2.0	Services	3	
	2.1	Water	3
	2.2	Sewer	3
	2.3	Electricity	4
	2.4	Gas	4
	2.5	Phone/Communications	5
	2.6	Stormwater	5
	2.7	Conclusion	6
3.0	Traffic Issues	7	
	3.1	Road Network and Accessibility	7
	3.2	Crash History	7
	3.3	Traffic Volumes	8
	3.4	Traffic Speeds	8
	3.5	Vehicular Access	8
	3.6	Bus Routes	9
4.0	Conclusions	10	
Appendix A:	Site Service Plans	a-1	

List of Figures

Figure 1-1	Former North Curtin Primary School Site	1
Figure 1-2	Curtin Suburb Map	2
Figure 3-1	Curtin Street Network	7
Figure 3-2	Potential Locations for Vehicular Access	8
Figure 3-3	ACTION Bus Routes	9

DRAFT

Executive Summary

Maunsell Australia has been engaged by Purdon Associates to undertake an investigation of engineering services at the site of the former North Curtin Primary School located in Curtin, ACT. This investigation is part of the ACT Government surplus school site assessment process.

Traffic

The former North Curtin Primary School site is located within Curtin, to the north-west of the Curtin Group centre. Curtin is a well established residential suburb in the District of Woden Valley. The former school site is adjacent to Carruthers Street, one of the major collectors. The site is well connected to both the local road network and the neighbourhood footpath network.

Vehicular access to the site is primarily off Carruthers Street through a single, well located driveway entry. Alternative access is provided off Storey Street. Carruthers Street is carrying around 3,500 vehicles per day, which is typical for a collector in this suburb. The speed limit on Carruthers Street in front of the site is 60 km/h. Local crash history data revealed a relatively small number of accidents on Carruthers Street over the last 5 years, indicating that there may have been few safety issues in the immediate area.

The following services have been identified within and / or nearby the Curtin Primary School site:

Water

- 300mm diameter trunk water main on Carruthers Street;
- 375mm diameter trunk water main on Jenkins Street;
- 150mm diameter water main on Storey Street; and
- Two existing ties off the 375mm trunk main.

ActewAGL have confirmed the adequacy of the existing water mains to supply the existing development. There have been no capacity issues or complaints.

Sewer

- 300mm diameter main within floodway reserve area;
- 150mm diameter main on Carruthers Street;
- 150mm diameter main on Storey Street;
- 150mm diameter main on Jenkins Street, crossing the school site area; and
- 150mm diameter main crossing the Queen Elizabeth II Family Centre area;
- One tie off Queen Elizabeth II Family Centre main manhole to the school building.

According to the service provider ActewAGL, the local sewer system has adequate capacity to cater for the demand of the existing development.

Electricity

- Overhead High-Voltage power distribution cables along the school site western boundary;
- Overhead High-Voltage power distribution cables along the school site southern boundary;
- Overhead Low-Voltage power distribution cables along the school site western boundary;
- Underground Low-Voltage power distribution cables across Nealie Place towards the preschool buildings;

DRAFT

- Underground Low- and High-Voltage power connection cables from the overhead Low- and High-Voltage cables to the west of the site;
- Overhead streetlighting cables along the western and southern boundaries of the school site;
- Underground streetlighting cables on Carruthers Street along the southern boundary of the school site; and
- Underground streetlighting cables within the school carpark.

Gas

- 110mm diameter main on Carruthers Street;
- 40mm diameter main on Storey Street;
- 40mm diameter main on Jenkins Street; and
- 32mm diameter tie off the Carruthers Street main.

No capacity issues or constraints have been identified by the service provider.

Stormwater

Existing stormwater facilities managed by TAMS (Roads ACT) are located within the area as follows:

- 375mm diameter main within the southern verge of Storey Street which follows the northern boundary of the school site from the west to the east;
- 300mm diameter main follows the western boundary of the school site from the south to the north and crosses the north-western corner of the site; and
- 525mm diameter main within the southern verge of Carruthers Street to the south of the school site.

Major overland flow may result from a 100 Year storm event at the north-eastern area of the site.

Telecommunication

All premises within the school site either are, or could be connected to the telecommunication cable network operated by the two service providers, Telstra and TransACT.

Telstra

- Communication network lines within the Carruthers Street corridor;
- Communication network lines along the western boundary of the school site; and
- Two cable connections off the western boundary line.

TransACT

Cables of communication network in the vicinity of the site.

ICON

The Commonwealth's underground Optical Fibre Network cables are located within the school site.

DRAFT

Conclusion

No issues of significance could be identified at the former Curtin Primary School site. The site and the school premises appear to be adequately connected to all key services.

Stormwater and sewer lines crossing the north-west corner of the school site will require 2.5m easements. Major overland flow may result from a 100 Year storm event at the north-eastern area of the site.

A developer will need to seek confirmation regarding the location of ICON communication cables within the site. Other services in the vicinity of the site should not create any significant restrictions on the future development of the site.

There are currently no significant issues associated with traffic in the vicinity of the site. Traffic volumes and speeds appear to be typical for this suburb and there have been only a few crashes recorded in the local area over the past 5 years. There appears to be a number of locations which could be used for additional vehicular access points to the site if any future developments should require them. The site is also well connected to the local footpath and reasonably well connected to the public transport networks.

However, the adequacy of the current services, including provision for additional vehicular access points and on-site car parking should be investigated if any future re-development or altered use of the site is considered. Any potential issues with future changes to the use of this site should be discussed with the service providers.

DRAFT

1.0 North Curtin Primary School Site

1.1 Introduction

Maunsell Australia has been engaged by Purdon Associates to undertake an investigation of engineering services at the site of the former North Curtin Primary School in Curtin, ACT. This investigation is part of the ACT Government surplus school site assessment process.

1.2 The Site

The boundaries of the North Curtin Primary School site (Block 2 Section 99, Curtin) are highlighted by red lines in Figure 1-1.



Figure 1-1 Former North Curtin Primary School Site

The site is located in the centre of the well established residential suburb of Curtin. The former primary school premise is currently occupied by the Emergency Services Authority. Adjacent to the former school site are also the Queen Elizabeth II Family Centre and an undeveloped site which is being considered for future development. The suburb structure is illustrated in Figure 1-2.



Source: Canberra and Queanbeyan Street Directory 2005

Figure 1-2 Curtin Suburb Map

1.3 Existing Site Use and Conditions

The site under investigation comprises Block 2 Section 99 Curtin which was formerly a local primary school in the centre of a typical dormitory suburb of the Woden Valley District. The school site is located adjacent to Carruthers Street and is bounded by Storey Street to the north, Jenkins Street to the west and by the Queen Elizabeth II Family Centre area and a public space area to the east. The landscaped area near the north-east corner of the school site (as shown in Figure 1-1) is currently identified for future development. There is a pedestrian footpath that follows the Carruthers Street boundary of the site.

The site accommodates former North Curtin Primary School buildings currently used by the ACT Emergency Services Authority and the Curtin Child Care Centre. The site is currently permitted to be used as a Community Facility under the Territory Plan.

DRAFT

2.0 Services

It is important to confirm the location, size and capacity of any existing services both within and nearby any site that is earmarked for development. These factors can play a critical role in determining the feasibility of potential development options. Existing services have been identified through available documentation provided by service providers and / or through visual inspection.

The following services have therefore been identified on and / or adjacent to the Curtin Primary School site. It is stressed that all information, sizes, alignments etc. are to be viewed as indicative only. Thus any of this information has to be confirmed on site prior to the initiation of further site works.

2.1 Water

Available documentation from ActewAGL has been examined, and the following existing water services have been identified on and / or adjacent to the site:

- 375mm diameter trunk main which follows the western boundary of the school site;
- 300mm diameter trunk main which follows the southern boundary of the school site within the northern verge of Carruthers Street;
- 150mm diameter main within the northern verge of Storey Street parallel to the northern boundary of the school site; and
- Two ties off the 375mm trunk main to the school site boundary.

The 375mm diameter main following the western boundary of the school site requires a 3m (or as advised) easement. An additional 3 metre setback from the easement line needs to be considered prior to deciding on the location of any permanent structures.

ActewAGL have confirmed that the existing 375mm diameter water main following the western boundary of the site is sufficient to supply the existing development. No capacity issues or constraints have been identified, although consultation with ActewAGL would be required before any development of the site could go ahead.

There is an indicative illustration of the location of the ActewAGL water service pipes in Appendix A. More detailed plans are available from ActewAGL, but would need to be checked on site as part of any redevelopment of the site.

2.2 Sewer

Available documentation from ActewAGL has been examined, and the following existing services have been identified on and adjacent to the site:

- 300mm diameter main which follows the western boundaries of residential properties further east of the school site;
- 150mm diameter main on Carruthers Street;
- 150mm diameter main which follows part of the northern boundary of the site within the southern verge of Storey Street;
- 150mm diameter main which branches off the Storey Street main, crosses the north-west corner of the site towards Jenkins Street and follows the western boundary of the school site;
- 150mm diameter main which branches off the 300mm main across the Queen Elizabeth II Family Centre area towards the school site eastern boundary; and

DRAFT

- One former school sewer tie connects to a manhole of the 150mm Queen Elizabeth II Family Centre main.

The Storey Street main and the 150mm main following the western boundary of the school and crossing the north-east corner of the site require 2.5m (or as advised) easements.

The tie off the Queen Elizabeth II Family Centre main manhole will be handed over to the developer of the site.

An indicative location of the ActewAGL sewer service pipes in the vicinity is shown in Appendix A. More detailed plans are available from ActewAGL, but these would need to be checked on site as part of any redevelopment of the site.

2.3 Electricity

Available documentation from ActewAGL has been examined, and the following existing power supply services have been identified on and / or adjacent to the site:

- Overhead High-Voltage power distribution cables along the school site western boundary;
- Overhead High-Voltage power distribution cables along the school site southern boundary;
- Overhead Low-Voltage power distribution cables along the school site western boundary;
- Underground Low-Voltage power distribution cables across Nealie Place towards the preschool buildings;
- Underground Low- and High-Voltage power connection cables from the overhead Low- and High-Voltage cables to the west of the site;
- Overhead streetlighting cables along the western and southern boundaries of the school site;
- Underground streetlighting cables on Carruthers Street along the southern boundary of the school site; and
- Underground streetlighting cables within the school carpark.

ActewAGL has confirmed that the local cable system is currently capable of providing adequate power supply. However, the developer will be required to liaise with ActewAGL once any development proposals have been confirmed. ActewAGL's policy states that power will be supplied to the site boundary at the developer's expense. If the redeveloped site requires more power than the current supply, a substation will be required at some location within the site, which will be mutually decided upon by the developer and ActewAGL. Normal practice suggests that in this case all cabling and associated costs will be the responsibility of the developer, whereas the construction of the substation, with the exception of the construction of the plinth, is the responsibility of ActewAGL.

An indicative location of the electrical services supplied by ActewAGL is shown in Appendix A. More detailed plans are available from ActewAGL, but these would need to be checked on site as part of any redevelopment of the site.

2.4 Gas

Available documentation from AGILITY has been examined, and the following existing gas supply services have been identified on and / or adjacent to the site:

- 110mm diameter main within the southern verge of Carruthers Street south of the school site;
- 40mm diameter main within the western verges of Jenkins Street west of the school site;

DRAFT

- 40mm diameter main within the northern verges of Storey street north of the school site; and
- 32mm diameter tie off the Carruthers Street main.

The documentation has identified an existing 32mm diameter tie off the 110mm diameter Carruthers Street main. There were no capacity issues or constraints identified by the service provider.

There is an indicative illustration of the location of AGILITY gas service pipes in Appendix A. More detailed plans are available from AGILITY, but these would need to be checked on site as part of any redevelopment of the site.

2.5 Phone/Communications

Available documentation from the two communication service providers (Telstra, TransACT and ICON) was examined and the following communication services have been identified on and / or adjacent to the site:

Telstra

The following Telstra telecommunication facilities are in the vicinity of the site:

- Communication network lines within the Carruthers Street corridor;
- Communication network lines along the western boundary of the school site; and
- Two cable connections off the western boundary line.

An indicative only location of the telecommunication cables in the vicinity of the site is illustrated in Appendix A. More detailed plans are available from Telstra, but would need to be checked on site as part of any redevelopment of the site.

TransACT

TransACT has indicated that TransACT telecommunication facilities are located either within or in the vicinity of the school site. TransACT regards the details of the communication network as confidential. Therefore, no detailed information on the location of the TransACT facilities could be published herein. TransACT should be consulted if any change of use of the site is proposed.

ICON

- The Commonwealth's underground Optical Fibre Network cables are located within the school site.

2.6 Stormwater

Existing stormwater facilities managed by TaMS (Roads ACT) are located within the area as follows:

- 375mm diameter main within the southern verge of Storey Street follows the northern boundary of the school site from the west to the east;
- 300mm diameter main which follows the western boundary of the school site from the south to the north and crosses the north-western corner of the site; and
- 525mm diameter main within the southern verge of Carruthers Street south of the school site;

DRAFT

The 300mm diameter main crossing the north-west corner of the school site requires a 2.5 metre easement on each side of the main.

There are existing low points in the north-east corner of the slightly graded school site. The area adjacent to the eastern boundary of the school site slopes progressively towards the local floodway corridor east of the school site. Available documentation from TaMS (Roads ACT) was examined indicating that major overland flow may result in a 100 Year storm event at the north-east area of the site.

An indicative only plan of the location of the stormwater facilities in the vicinity of the site is illustrated in Appendix A. More detailed plans are available from TaMS (Roads ACT), but would need to be checked on site as part of any redevelopment of the site.

2.7 Conclusion

The sewer and stormwater mains crossing the north-west corner of the school site require 2.5m easements on both sides of the pipe corridors.

There are existing low points in the north-east corner of the slightly graded school site. The area adjacent to the eastern boundary of the school site slopes progressively towards the local floodway corridor east of the school site. Available documentation from TaMS (Roads ACT) was examined indicating that major overland flow may result in a 100 Year storm event at the north-east area of the site.

No other issues of critical significance were identified at the North Curtin Primary School site. The site and the school premises are adequately connected to all key services, such as water, sewerage, electrical-power supply and a communications network. However, the adequacy of the current services, including provision for additional vehicular accesses and on-site car parking should be examined if any future re-development or altered use of the site is considered. Any potential issues with future changes to the use of this site should be discussed with the service providers.

The developer will be required to liaise with service providers once the development proposals have been confirmed. This is particularly the case with the electrical power supply (ActewAGL).

3.0 Traffic Issues

3.1 Road Network and Accessibility

The local street network is dense and adequately serves all properties within the area. The local Curtin network connects to the arterial road network through two major local collectors, with Melba Street and Carruthers Street connecting to Antill Street and Phillip Avenue. The structure and hierarchy of the Curtin road network is illustrated in Figure 3-1.



Figure 3-1 Curtin Street Network

The former Curtin Primary School is also well connected to the neighbourhood footpath and cyclepath network.

3.2 Crash History

Local crash history data reports 3 property damage only accidents during the last 5 years, indicating that there have been few traffic safety problems in the local area.

3.3 Traffic Volumes

Carruthers Street is carrying around 3,500 vehicles per day, which is typical for a collector in this suburb, although slightly higher than desirable for a collector with standard residential access driveways. The eastbound weekday daily traffic volumes on Carruthers Street range between 1,737 and 1,910 vehicles per day, the westbound weekday daily volumes range between 1,654 to 1,750 vehicles per day (Source Roads ACT August 2006). The highest recorded peak hour volume was 335 vehicles per hour in the eastbound direction and 117 in the westbound direction. There is no evidence or indication that the roads in the vicinity of the site require the attention of the local road authorities.

3.4 Traffic Speeds

The speed limit on Carruthers Street near the former primary school site is 60km/h. An earlier study of speeds on Carruthers Street in 2000/01 recorded an 85th percentile speed of 58.1 km/h.

3.5 Vehicular Access

The vehicular access to the former school front-yard on-site car park is off Carruthers Street. An additional access to the rear or northern on-site carpark is available off Storey Street. There is a service vehicle access of Jenkins Street. The existing access arrangements seem reasonable. Emergency services, delivery or recycling and garbage collection vehicles access can readily be accommodated.

The access arrangements need to be considered as part of an assessment of any future development of the site. It is suggested that no future access should encroach areas adjacent to the existing street junctions as highlighted in Figure 3-2. This figure also indicates preferred areas along the site boundaries where future access / egress entries may be accommodated.



Figure 3-2 Potential Locations for Vehicular Access

3.6 Bus Routes

There are no bus stops immediately in front of the site, although the Territory's public transport service provider, ACTION provides services along Carruthers Street south and east of the school site as shown in Figure 3-3. There are bus stops on McCulloch Street and Throssell Street closest to the site. Bus stops in Figure 3-3 are indicated by a white dot.



Figure 3-3 ACTION Bus Routes

4.0 Conclusions

In general, the engineering services associated with the site appear to be adequate. However, further consultation with providers of all services would be required when detailed plans for the site are developed.

The sewer and stormwater mains crossing the north-west corner of the school site require 2.5m easements on both sides of the pipe corridors.

There are existing low points in the north-east corner of the slightly graded school site. The area adjacent to the eastern boundary of the school site slopes progressively towards the local floodway corridor east of the school site. Available documentation from TaMS (Roads ACT) was examined indicating that major overland flow may result in a 100 Year storm event at the north-east area of the site.

Traffic volumes and speed appear to be typical for this suburb and there have been only a few accidents recorded in the immediate area over the past 5 years. Access to the site is adequate with options for additional access points if required. The site is also well connected to the local footpath and reasonably well connected to the public transport networks.

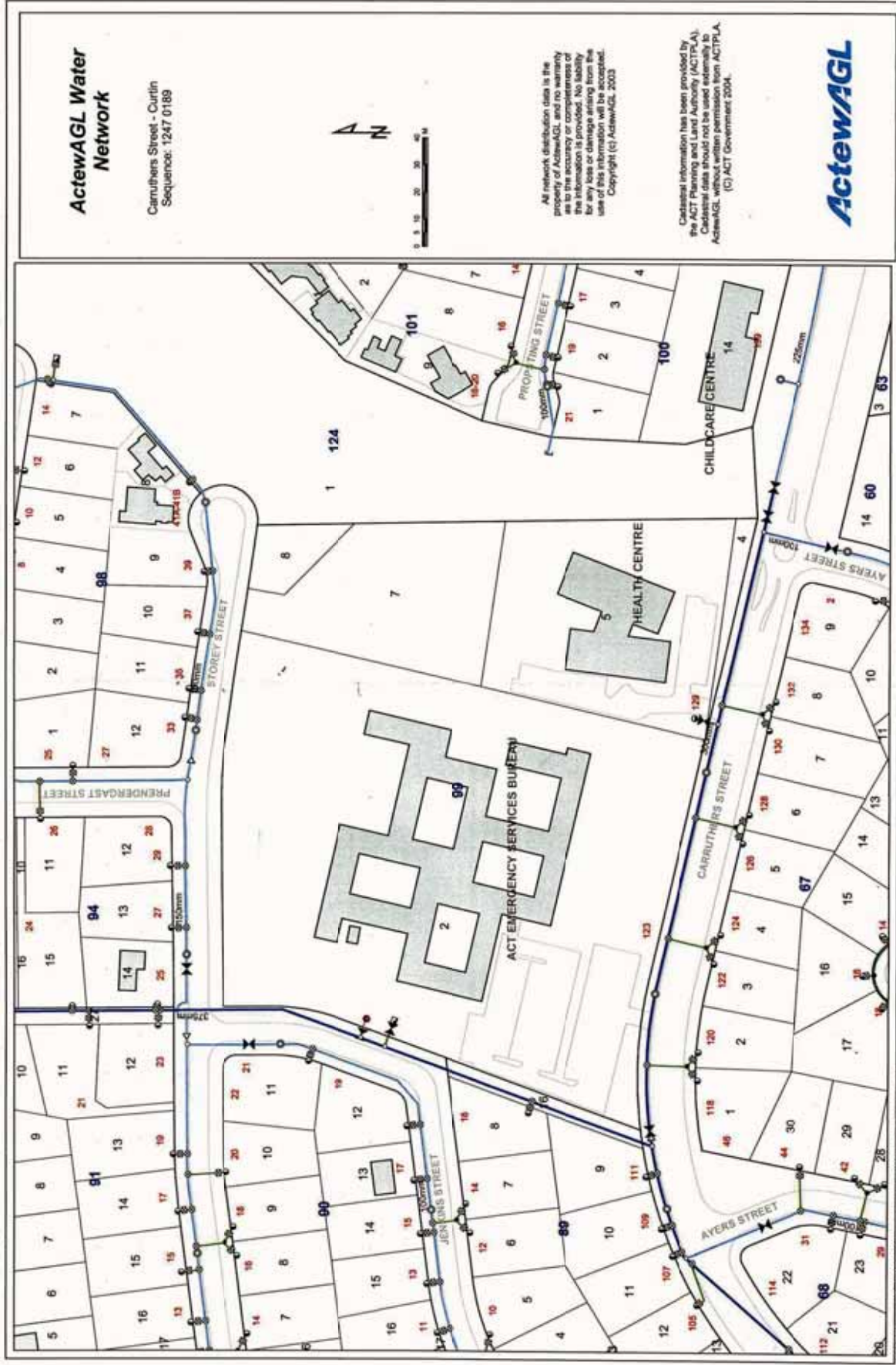
There appears to be a number of areas which could be used for additional vehicular access points to the site if any future developments should require them.

DRAFT

Appendix A: Site Service Plans

Note: The following plans show the indicative location of services that formed the basis of the comments in the report. More detailed information and plans are available from the service providers that produced these plans.

DRAFT



DRAFT



Acadrap Template: T:\Acadrap\Templates\Sewer\SewerA3 Landscape.mxd

DRAFT



ActewAGL Electricity Network

Seq # 12427436
4/28, RIVETT

All network distribution data is the property of ActewAGL and no warranty is made as to the accuracy or completeness of the information provided. ActewAGL does not accept any liability for any loss or damage arising from the use of this information. Copyright (c) ActewAGL, 2006

ACT cadastral and land information is based on EDMS data provided by the ACT Land Information Centre, part of the Australian Capital Territory and the ACT Planning and Property Administration. ActewAGL does not warrant as to the accuracy or completeness of this information is provided, and its liability for loss or damage arising from the use of this information is limited to the extent of the ACT Land Information Centre. Copyright © Australian Capital Territory 2006



Agility Gas Network



Source: Agility

